CLAIM AMENDMENTS

Claim Amendment Summary

Claims pending

- At time of the Action: Claims 1-33.

- After this Response: Claims 1-33 and 47-55.

Canceled or Withdrawn claims: none.

Amended claims: 1, 9, 18-22, and 28.

New claims: 47-55.

Claims:

1.   (CURRENTLY AMENDED) A method for concealing an information pattern of multiple discrete values within a digital signal, the method comprising:

receiving the information pattern of multiple discrete values;

chessboarding the discrete values of the information pattern to produce chessboarded discrete values, wherein chessboarding comprises adjusting one or more discrete values of the information pattern.

2.   (ORIGINAL) A method as recited in claim 1 further comprising encoding the chessboarded discrete values into the digital signal, wherein such signal is noise in relation to the information pattern.

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3.   (ORIGINAL) A method as recited in claim 1, wherein the chessboarding comprises:

pseudorandomly determining whether to change each discrete value of the information pattern, wherein such determining is based upon a pseudorandom number generator (PRNG) and a key;

changing each discrete value of the information pattern that the determining indicates should be changed, thereby producing chessboarded discrete values.

4.   (ORIGINAL) A method as recited in claim 1, wherein the chessboarding comprises:

pseudorandomly determining whether to change each discrete value of the information pattern, wherein such determining is based upon a look-up table;

changing each discrete value of the information pattern that the determining indicates should be changed, thereby producing chessboarded discrete values.

5.   (ORIGINAL) A method as recited in claim 1, wherein the chessboarded discrete values are entropy-balanced.

6.   (ORIGINAL) A method as recited in claim 1, wherein the chessboarded discrete values are absolutely chessboarded.

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7.   (ORIGINAL) A method as recited in claim 1, wherein the digital signal is an digital audio signal.

8.   (ORIGINAL) A computer-readable medium having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 1.

9.   (CURRENTLY AMENDED) A method for revealing an information pattern of multiple chessboarded discrete values within a digital signal, wherein the chessboarded discrete values correspond to original discrete values of the information pattern before the values were chessboarded, the method comprising:

receiving the information pattern of multiple chessboarded discrete values;

un-chessboarding the chessboarded discrete values to produce the original values of the information pattern, wherein un-chessboarding comprises adjusting one or more discrete values of the information pattern.

10.   (ORIGINAL) A method as recited in claim 9 further comprising detecting the original discrete values encoded in the digital signal, wherein such signal is noise in relation to the information pattern.

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11.   (ORIGINAL) A method as recited in claim 9, wherein the un-chessboarding comprises:

pseudorandomly determining whether to change each chessboarded discrete value of the information pattern, wherein such determining is based upon a pseudorandom number generator (PRNG) and a key;

changing each chessboarded discrete value of the information pattern that the determining indicates should be changed, thereby producing the original discrete values of the information pattern.

12.   (ORIGINAL) A method as recited in claim 11, wherein the key of the un-chessboarding is identical to a key used to generate the chessboarded discrete values from the original discrete values.

13.   (ORIGINAL) A method as recited in claim 9, wherein the un-chessboarding comprises:

pseudorandomly determining whether to change each chessboarded discrete value of the information pattern, wherein such determining is based upon a look-up table;

changing each chessboarded discrete value of the information pattern that the determining indicates should be changed, thereby producing the original discrete values of the information pattern.

14.   (ORIGINAL) A method as recited in claim 9, wherein the chessboarded discrete values are entropy-balanced.

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15. (ORIGINAL) A method as recited in claim 9, wherein the chessboarded discrete values are absolutely chessboarded.

16. (ORIGINAL) A method as recited in claim 9, wherein the digital signal is an digital audio signal.

17. (ORIGINAL) A computer-readable medium having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 9.

18. (CURRENTLY AMENDED) A computer-readable medium having computer-executable instructions that, when executed by a computer, perform a method for concealing an information pattern of multiple discrete values within a digital signal, the method comprising:

receiving the information pattern of multiple discrete values;

chessboarding the discrete values of the information pattern to produce chessboarded discrete values, wherein chessboarding comprises adjusting one or more discrete values of the information pattern;

encoding the chessboarded discrete values into the digital signal, wherein such signal is noise in relation to the information pattern.

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19. (CURRENTLY AMENDED) A computer-readable medium having computer-executable instructions that, when executed by a computer, perform a method for revealing an information pattern of multiple chessboarded discrete values within a digital signal, wherein the chessboarded discrete values correspond to original discrete values of the information pattern before the values were chessboarded, the method comprising:

receiving the information pattern of multiple chessboarded discrete values;

un-chessboarding the chessboarded discrete values to produce the original values of the information pattern, wherein un-chessboarding comprises adjusting one or more discrete values of the information pattern;

detecting the original discrete values encoded in the digital signal, wherein such signal is noise in relation to the information pattern.

20. (CURRENTLY AMENDED) An apparatus comprising:

a processor;

a chessboarder executable on the processor to:

receive an information pattern of multiple discrete values;

chessboard the discrete values of the information pattern to produce chessboarded discrete values, wherein one or more of the chessboarded discrete values differs from the discrete values before chessboarding.

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21. (CURRENTLY AMENDED) An apparatus comprising:

a processor;

an un-chessboarder executable on the processor to:

    receive an information pattern of multiple chessboarded discrete values;

    un-chessboard the chessboarded discrete values to produce original values of the information pattern, wherein one or more of the un-chessboarded discrete values differs from the chessboarded discrete values before un-chessboarding.

22. (CURRENTLY AMENDED) An information pattern encoding system for concealing an information pattern of multiple discrete values within a digital signal, wherein such signal is noise in relation to the information pattern, the system comprising:

a receiver for receiving the information pattern of multiple discrete values and the digital signal;

a chessboarder coupled to such receiver, the chessboarder chessboards the discrete values received from the receiver to produce chessboarded discrete values, wherein one or more of the chessboarded discrete values differs from the discrete values before chessboarding;

an encoder coupled to the receiver and the chessboarder, the encoder inserts the chessboarded discrete values received from the chessboarder into the digital signal received from the receiver.

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23. (ORIGINAL) An encoding system as recited in claim 22, wherein the chessboarder comprises:

a pseudorandom number generator (PRNG) for pseudorandomly determining whether to change each discrete value of the information pattern;

a value-adjuster to change each discrete value of the information pattern that the PRNG indicates should be changed, thereby producing chessboarded discrete values.

24. (ORIGINAL) An encoding system as recited in claim 22, wherein the chessboarder comprises:

a look-up table data structure for pseudorandomly determining whether to change each discrete value of the information pattern;

a value-adjuster to change each discrete value of the information pattern that the data structure indicates should be changed, thereby producing chessboarded discrete values.

25. (ORIGINAL) An encoding system as recited in claim 22, wherein the chessboarded discrete values are entropy-balanced.

26. (ORIGINAL) An encoding system as recited in claim 22, wherein the digital signal is a digital audio signal.

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27. (ORIGINAL) An operating system comprising an encoding system as recited in claim 22.

28. (CURRENTLY AMENDED) A marked signal with an information pattern of multiple chessboarded discrete values encoded therein, the marked signal generated in accordance with the following acts:

receiving an information pattern of multiple discrete values and an unmarked signal;

chessboarding the discrete values of the information pattern to produce chessboarded discrete values of the information pattern, wherein one or more of the chessboarded discrete values differs from the discrete values before chessboarding;

encoding the chessboarded discrete values into the unmarked signal to produce the marked signal, wherein such unmarked signal is noise in relation to the information pattern.

29. (ORIGINAL) A marked signal as recited in claim 28, wherein the chessboarding comprises:

pseudorandomly determining whether to change each discrete value of the information pattern, wherein such determining is based upon a pseudorandom number generator (PRNG) and a key;

changing each discrete value of the information pattern that the determining indicates should be changed, thereby producing chessboarded discrete values.

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30. (ORIGINAL) A marked signal as recited in claim 28, wherein the chessboarding comprises:

pseudorandomly determining whether to change each discrete value of the information pattern, wherein such determining is based upon a look-up table;

changing each discrete value of the information pattern that the determining indicates should be changed, thereby producing chessboarded discrete values.

31. (ORIGINAL) A marked signal as recited in claim 28, wherein the chessboarded discrete values are entropy-balanced.

32. (ORIGINAL) A marked signal as recited in claim 28, wherein the chessboarded discrete values are absolutely chessboarded.

33. (ORIGINAL) A marked signal as recited in claim 28, wherein the marked and unmarked signals are digital audio signals.

Claims 34-46 are CANCELED.

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NEW CLAIMS:

47. **(NEW)** A method for concealing an information pattern of multiple discrete values within a digital signal, the method comprising:

receiving the information pattern of multiple discrete values;

chessboard encoding the discrete values of the information pattern to produce chessboarded discrete values, wherein chessboard encoding comprises adjusting the discrete values in accordance with a defined pattern.

48. **(NEW)** A method as recited in claim 47, wherein the chessboarded discrete values are absolutely chessboarded.

49. **(NEW)** A method as recited in claim 47, wherein the digital signal is an digital audio signal.

50. **(NEW)** One or more computer-readable media having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 47.

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51. (NEW) · A method for concealing an information pattern of multiple discrete values within a digital signal, the method comprising:

receiving the information pattern of multiple discrete values;

generating a pseudorandom pattern based upon a pseudorandom number generator (PRNG) and a key;

chessboard encoding the discrete values of the information pattern to produce chessboarded discrete values, wherein chessboard encoding comprises adjusting one or more of the discrete values in accordance with the pseudo-randomly generated pattern.

52. (NEW) A method as recited in claim 51 further comprising encoding the chessboarded discrete values into the digital signal, wherein such signal is noise in relation to the information pattern.

53. (NEW) A method as recited in claim 51, wherein the chessboarded discrete values are entropy-balanced.

54. (NEW) A method as recited in claim 51, wherein the digital signal is an digital audio signal.

55. (NEW) One or more computer-readable media having computer-executable instructions that, when executed by a computer, performs the method as recited in claim 51.

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